

AMENDMENTS TO THE CLAIMS:

Claims 1-16, 21, and 24-26 are canceled without prejudice or disclaimer. Claims 27-39 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-26 (Canceled).

Claim 27 (New). A polypeptide having antimicrobial activity, comprising the amino acid sequence as set forth in SEQ ID NO: 1, or a fragment thereof of at least 19 amino acids having antimicrobial activity:

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-X13-X14-I-K-X15-X16-X17-X18-L-V-P;
wherein

X1 = L or R;

X2 = L, V, I or F;

X3 = R or K;

X4 = L, V, I or F;

X5 = R, K, W or G;

X6 = K, R, G, M, N or E;

X7 = G, R, K or E;

X8 = G, R, K or E;

X9 = L or F;

X10 = K or R;

X11 = I, L, F, C or Y;

X12 = G, A or T;

X13 = Q, R, L or P;

X14 = K, I, M, L or V;

X15 = P, A, H, N or D;

X16 = I or L;

X17 = R, H, Q or P;

X18 = I or K; and

wherein the amino acids making up the polypeptides are independently selected from D or L forms.

Claim 28 (New). A polypeptide having antimicrobial activity, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence:

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-Z;

wherein

X1 = L or R;

X2 = L, V, I or F;

X3 = R or K;

X4 = L, V, I or F;

X5 = R, K, W or G;

X6 = K, R, G, M, N or E;

X7 = G, R, K or E;

X8 = G, R, K or E;

X9 = L or F;

X10 = K or R;

X11 = I, L, F, C or Y; X12 = G, A or T;

Z = R or X13-X14-I-K-X15-X16-X17-X18-L-V-P; wherein X13 = Q, L or P; X14 = K, I, M, L or V; X15 = P, A, H, N or D; X16 = I or L; X17 = R, H, Q or P; and X18 = I or K; and wherein the amino acids making up the polypeptides are independently selected from D or L forms.

Claim 29 (New). The polypeptide of claim 28, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence, as set forth in SEQ ID NO: 58,

G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-X10-K-X11-X12-R;

wherein

X1 is L or R;

X2 is L or F;

X3 is R or K;

X4 is L or F;

X5 is R, K or G;

X6 is K, R or E;

X7 is G or K;

X8 is K, R or E;

X9 is L or F;

X10 is K or R;

X11 is I or L; and

X12 is A or T.

Claim 30 (New). The polypeptide of claim 28, comprising an amino acid sequence, which differs by at the most two amino acids from the amino acid sequence, as set forth in SEQ ID NO: 2, G-X1-X2-X3-R-X4-X5-X6-K-I-X7-X8-K-X9-K-K-X10-G-X11-X12-I-K-X13-X14-X15-X16-L-V-P; wherein

X1 = L or R;

X2 = L, V, I or F;

X3 = R or K;

X4 = L, V, I or F;

X5 = R, W or G;

X6 = K, R, G, M, N or E;

X7 = G, R, K or E;

X8 = G, R, K or E;

X9 = L or F;

X10 = I, F, C or Y;

X11 = Q, L or P;

X12 = K, I, M, L or V;

X13 = P, A, H, N or D;

X14 = I or L;

X15 = R, H, Q or P; and

X16 = I or K.

Claim 31 (New). The polypeptide of claim 28, which comprises an amino acid sequence that has at the most two substitutions, deletions and/or insertions of an amino acid as compared to amino acids 1 to 29 of SEQ ID NO: 1, amino acids 1 to 29 of SEQ ID NO: 2 or amino acids 1 to 19 of SEQ ID NO: 58.

Claim 32 (New). The polypeptide of claim 28, which comprises amino acids 1 to 29 of SEQ ID NO: 1, amino acids 1 to 29 of SEQ ID NO: 2 or amino acids 1 to 19 of SEQ ID NO: 58.

Claim 33 (New). The polypeptide of claim 28, which consists of amino acids 1 to 29 of SEQ ID NO: 1, amino acids 1 to 29 of SEQ ID NO: 2 or amino acids 1 to 19 of SEQ ID NO: 58.

Claim 34 (New). A composition comprising an antimicrobial polypeptide of claim 27 and an additional biocidal agent.

Claim 35 (New). A detergent composition comprising a surfactant and an antimicrobial polypeptide of claim 27.

Claim 36 (New). An animal feed additive comprising

- (a) at least one antimicrobial polypeptide of claim 27; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 37 (New). The animal feed additive of claim 36, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 38 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising at least one antimicrobial polypeptide of claim 27.

Claim 39 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with an antimicrobial polypeptide of claim 27.